

16. A mobile station of a cellular radio network, comprising:

- means for setting up communication connections between it and base stations of the cellular radio network,

5 - means for observing an arrangement of repeatedly occurring frames that consist of pieces of allocatable radio communication capacity between the base station and mobile stations communicating therewith

- means for locating such a piece of radio communication capacity within the arrangement of repeatedly occurring frames which is allocated to a non-dedicated fast signalling channel and

10 - means for utilising said piece of radio communication capacity allocated to a non-dedicated fast signalling channel by transmitting or receiving fast signalling messages to or from said base station.

17. A mobile station according to claim 16, comprising:

15 - means for examining, whether a part of an existing dedicated communication connection in the communication direction from the mobile station to the base station is available for conveying fast signalling messages from said mobile station to the base station and

20 - means for utilising such a part of an existing dedicated communication connection, if found to be available, by transmitting fast signalling messages to said base station, and only utilising said piece of radio communication capacity allocated to a non-dedicated fast signalling channel by transmitting fast signalling messages to said base station is no part of an existing dedicated communication connection was found to be available.

18. A mobile station according to claim 16, comprising:

25 - means for examining, whether a part of an existing dedicated communication connection in the communication direction from the mobile station to the base station is available for conveying at least some fast signalling messages from said mobile station to the base station and

30 - means for utilising such a part of an existing dedicated communication connection, if found to be available, by transmitting fast signalling messages to said base station, and only utilising said piece of radio communication capacity allocated to a

non-dedicated fast signalling channel by transmitting those fast signalling messages to said base station for which no part of an existing dedicated communication connection was found to be available.

19. A base station of a cellular radio network, comprising:

5 - means for setting up communication connections between it and mobile stations of the cellular radio network,

- means for setting up an arrangement of repeatedly occurring frames that consist of pieces of allocatable radio communication capacity between the base station and mobile stations communicating therewith,

10 - means for indicating such a piece of radio communication capacity within the arrangement of repeatedly occurring frames which is allocated to a non-dedicated fast signalling channel and

- means for utilising said piece of radio communication capacity allocated to a non-dedicated fast signalling channel by receiving or transmitting fast signalling  
15 messages from or to at least one mobile station.